REMARKS

Claims 1-18 were examined and reported in the Office Action. Claims 1-18 are rejected. Claims 1-18 remain.

Applicant requests reconsideration of the application in view of the following remarks.

I.   In the Drawings

The Office Action states the drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include reference characters not mentioned in the description.

Applicant submits amended figures 5 and 6 in addition to amending the specification to comply with 37 CFR 1.84(p)(5). Applicant respectfully requests approval.

II.   35 U.S.C. §103(a)

A.   It is asserted in the Office Action that claims 1, 3, 6-8, 10, 12-14, 16, and 18 are rejected under 35 U.S.C. §103(a), as being unpatentable over U.S. Patent Application 2002/0191599 by Parthasarathy et al ("Parthasarathy") in view of U.S. Patent No. 5,968,153 issued to Wheeler et al. ("Wheeler"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

According to MPEP §2142

> [t]o establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. (In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

Further, according to MPEP §2143.03, "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (In re Royka,

490 F.2d 981, 180 USPQ 580 (CCPA 1974)." "*All words in a claim must be considered* in judging the patentability of that claim against the prior art." (In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970), emphasis added.)

Applicant's amended claim 1 contains the limitations of

> a host controller; and a host controller driver, wherein a plurality of banks containing a plurality of queue element transfer descriptors (qTDs) are created for a plurality of buffers posted to the host controller driver, and the qTDs are circularly linked and at least one qTD of the plurality of qTDs operates to store overflow content of at least one buffer of the plurality of buffers.

Applicant's amended claim 7 contains the limitations of

> a host controller; and a host controller driver coupled to the host controller, wherein the host controller arranges queue element transfer descriptors (qTDs) in a circularly linked order and at least one qTD operates to store overflow content of at least one buffer of a plurality of buffers.

Applicant's amended claim 13 contains the limitations of

> a bus; a first host controller coupled to the bus; and a second host controller coupled to the first host controller; wherein the first host controller arranges queue element transfer descriptors (qTDs) in a circularly linked order and at least one qTD operates to store overflow content of at least one buffer a plurality of buffers.

Parthasarathy discloses a host system including an I/O and memory controller 204 and one or more host-fabric adapters.

Wheeler discloses a device and method for improving performance of DMA transfers over a PCI™ bus.

The combination of Parthasarathy and Wheeler, however, do not teach, disclose or suggest Applicant's amended claim 1 limitations of

> a plurality of banks containing a plurality of queue element transfer descriptors (qTDs) are created for a plurality of buffers posted to the host controller driver, and the qTDs are circularly linked and at least one qTD of the plurality of qTDs operates to store overflow content of at least one buffer of the plurality of buffers,

Applicant's amended claim 7 limitations of

> the host controller arranges queue element transfer descriptors (qTDs) in a circularly linked order and at least one qTD operates to store overflow content of at least one buffer of a plurality of buffers,

or Applicant's amended claim 13 limitations of

> the first host controller arranges queue element transfer descriptors (qTDs) in a circularly linked order and at least one qTD operates to store overflow content of at least one buffer a plurality of buffers.

Since neither Parthasarathy, Wheeler, and therefore, nor the combination of the two, teach, disclose or suggest all the limitations of Applicant's amended claims 1, 7 and 13, as listed above, Applicant's amended claims 1, 7 and 13 are not obvious over Parthasarathy in view of Wheeler since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claims that directly or indirectly depend from amended claims 1, 7 and 13, namely claims 3 and 6, 8, 10 and 12, and 14, 16 and 18, respectively, would also not be obvious over Parthasarathy in view of Wheeler for the same reason.

Accordingly, withdrawal of the 35 U.S.C. §103 (a) rejections for claims 1, 3, 6-8, 10, 12-14, 16, and 18 are respectfully requested.

B. It is asserted in the Office Action that claims 2,9, and 15 are rejected under 35 U.S.C. §103(a), as being unpatentable over Parthasarathy in view of Wheeler in further view of U. S. Patent No. 6,775,733 issued to Chang et al ("Chang"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

Applicant's claim 2 directly depends on amended claim 1. Applicant's claim 9 directly depends on amended claim 7. Applicant's claim 15 directly depends on amended claim 13. Applicant has addressed Parthasarathy in view of Wheeler regarding claims 1, 7 and 13 above in section II(A).

Chang is relied on for disclosing an enhanced host controller interface. Chang further discloses a USB host system. Parthasarathy and Wheeler, however, are not concerned with a USB system at all. Combining different devices that have different standards (e.g., PCI, USB,

etc.) would result in a device that would not work. Regardless, Chang does not teach, disclose or suggest Applicant's amended claim 1 limitations of

> a plurality of banks containing a plurality of queue element transfer descriptors (qTDs) are created for a plurality of buffers posted to the host controller driver, and the qTDs are circularly linked and at least one qTD of the plurality of qTDs operates to store overflow content of at least one buffer of the plurality of buffers,

Applicant's amended claim 7 limitations of

> the host controller arranges queue element transfer descriptors (qTDs) in a circularly linked order and at least one qTD operates to store overflow content of at least one buffer of a plurality of buffers,

or Applicant's amended claim 13 limitations of

> the first host controller arranges queue element transfer descriptors (qTDs) in a circularly linked order and at least one qTD operates to store overflow content of at least one buffer a plurality of buffers.

Since neither Parthasarathy, Wheeler, Chang, and therefore, nor the combination of the three, teach, disclose or suggest all the limitations of Applicant's amended claims 1, 7 and 13, as listed above, Applicant's amended claims 1, 7 and 13 are not obvious over Parthasarathy in view of Wheeler and further in view of Chang since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claims that directly or indirectly depend from amended claims 1, 7 and 13, namely claims 2, 9, and 15, respectively, would also not be obvious over Parthasarathy in view of Wheeler and further in view of Chang for the same reason.

Accordingly, withdrawal of the 35 U.S.C. §103 (a) rejections for claims 2, 9, and 15 are respectfully requested.

C. It is asserted in the Office Action that claim 4 is rejected under 35 U.S.C. §103(a), as being unpatentable over Parthasarathy in view of Wheeler in further view of U. S. Patent No. 6,337,690 issued to Ashburn et al ("Ashburn"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

Applicant's claim 4 indirectly depends on amended claim 1. Applicant has addressed Parthasarathy in view of Wheeler regarding claim 1 above in section II(A).

Ashburn is relied on for disclosing ordering buffers in a video system. Similarly to Parthasarathy and Wheeler, Ashburn is not concerned with a USB system. Moreover, Ashburn does not teach, disclose or suggest Applicant's amended claim 1 limitations of

> a plurality of banks containing a plurality of queue element transfer descriptors (qTDs) are created for a plurality of buffers posted to the host controller driver, and the qTDs are circularly linked and at least one qTD of the plurality of qTDs operates to store overflow content of at least one buffer of the plurality of buffers.

Since neither Parthasarathy, Wheeler, Ashburn, and therefore, nor the combination of the three, teach, disclose or suggest all the limitations of Applicant's amended claim 1, as listed above, Applicant's amended claim 1 is not obvious over Parthasarathy in view of Wheeler and further in view of Ashburn since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claim that indirectly depends from amended claim 1, namely claim 4, would also not be obvious over Parthasarathy in view of Wheeler and further in view of Ashburn for the same reason.

Accordingly, withdrawal of the 35 U.S.C. §103 (a) rejection for claim 4 is respectfully requested.

D. It is asserted in the Office Action that claim 5 is rejected under 35 U.S.C. §103(a), as being unpatentable over Parthasarathy in view of Wheeler in further view of Ashburn in further view of U. S. Patent No. 5,488,717 issued to Gibson et al ("Gibson"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

Applicant's claim 5 indirectly depends on amended claim 1. Applicant has addressed Parthasarathy in view of Wheeler in further view of Ashburn regarding claim 1 above in section II(C).

Gibson is relied on for disclosing storing data in a node that has a next pointer and an alternate pointer. Similarly to Parthasarathy, Wheeler and Ashburn, Gibson is not concerned

with a USB system. Moreover, Gibson does not teach, disclose or suggest Applicant's amended claim 1 limitations of

> a plurality of banks containing a plurality of queue element transfer descriptors (qTDs) are created for a plurality of buffers posted to the host controller driver, and the qTDs are circularly linked and at least one qTD of the plurality of qTDs operates to store overflow content of at least one buffer of the plurality of buffers.

Since neither Parthasarathy, Wheeler, Ashburn, Gibson, and therefore, nor the combination of the four, teach, disclose or suggest all the limitations of Applicant's amended claim 1, as listed above, Applicant's amended claim 1 is not obvious over Parthasarathy in view of Wheeler and further in view of Ashburn further in view of Gibson since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claim that indirectly depends from amended claim 1, namely claim 5, would also not be obvious over Parthasarathy in view of Wheeler further in view of Ashburn and further in view of Gibson for the same reason.

Accordingly, withdrawal of the 35 U.S.C. §103 (a) rejection for claim 5 is respectfully requested.

E.   It is asserted in the Office Action that claims 11 and 17 are rejected under 35 U.S.C. §103(a), as being unpatentable over Parthasarathy in view of Wheeler in further view Gibson. Applicant respectfully traverses the aforementioned rejection for the following reasons.

Applicant's claim 11 indirectly depends on amended claim 7. Applicant's claim 17 indirectly depends on amended claim 13. Applicant has addressed Parthasarathy in view of Wheeler regarding claims 7 and 13 above in section II(A).

Gibson is relied on for disclosing a method for storing data in memory. Gibson is not concerned with a USB system. Moreover, Gibson does not teach, disclose or suggest Applicant's amended claim 7 limitations of

> the host controller arranges queue element transfer descriptors (qTDs) in a circularly linked order and at least one qTD operates to store overflow content of at least one buffer of a plurality of buffers,

or Applicant's amended claim 13 limitations of

the first host controller arranges queue element transfer descriptors
(qTDs) in a circularly linked order and at least one qTD operates to
store overflow content of at least one buffer a plurality of buffers.

Since neither Parthasarathy, Wheeler, Gibson, and therefore, nor the combination of the three, teach, disclose or suggest all the limitations of Applicant's amended claims 7 and 11, as listed above, Applicant's amended claims 7 and 11 are not obvious over Parthasarathy in view of Wheeler and further in view of Gibson since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claims that indirectly depend from amended claims 7 and 11, namely claims 11, and 17, respectively, would also not be obvious over Parthasarathy in view of Wheeler further in view of Gibson for the same reason.

Accordingly, withdrawal of the 35 U.S.C. §103 (a) rejections for claims 11 and 17 are respectfully requested.

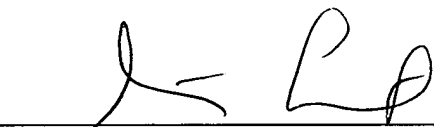**OIPE** APR 18 2006 PATENT & TRADEMARK OFFICE

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely 1-18, patentably define the subject invention over the prior art of record and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

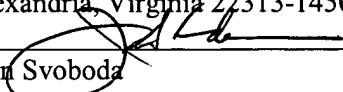**BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP**

Dated: <u>April 11, 2006</u>   By: _____

Steven Laut, Reg. No. 47,736

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025
(310) 207-3800

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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail with sufficient postage in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, Virginia 22313-1450 on April 11, 2006.

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Jean Svoboda